

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

A. Status of the Claims and Explanation of Amendments

Claims 1-26 were pending. By this paper claims 1-2, 11-14, 23 and 25-26 are cancelled without prejudice or disclaimer. Claim 3 is amended to recite, *inter alia*, a unit configured to “detect, on the basis of a captured image of an object photographed based on pre light emission prior to a main light emission, an edge in the captured image of the object.” Claim 15 has been similarly amended. Support for the amendment may be found throughout the specification as originally filed, including for example at page 33. Also, Non-substantive amendments have been made to claims 8, 9, 20, 21 and 22 to alter their wording. For example, the term “detected” has been replaced with the word “determined.”

As to the merits, claims 23 and 24 were rejected under 35 U.S.C. 101 as allegedly being directed to non-statutory subject matter. [10/9/08 Office Action at p.5]. By this paper, claim 24 is amended to recite a computer-readable medium and claim 23 has been cancelled. It is believed the claims as amended overcome the rejection.

Also, claims 1-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over by Sannoh et al. (US Patent Application Publication No. 2003/0071908, herein “Sannoh”) in view of Nozaki et al. (US Patent Application Publication No. 2004/0207743, herein “Nozaki”).

B. Claims 3-10, 15-22 and 24 are Patentably Distinct from Sannoh and Nozaki

The rejections of claims 3-10, 15-22 and 24 are respectfully traversed. As explained more fully below, the requirements for such rejections are not met. In particular, the references do not teach disclose or suggest a unit configured to “detect, on the basis of a captured image of an object photographed based on pre light emission prior to a main light emission, an edge in the captured image of the object.”

Applicant’s claim 3 recites:

An image capturing apparatus comprising:

an area detection unit configured to detect, on the basis of a captured image of an object photographed based on pre light emission prior to a main light emission, an edge in the captured image of the object to determine an area occupied by a predetermined shape defined by the edge in the captured image of the object;

a light control area setting unit configured to set a light control area of a light emitting unit in the captured image in accordance with the area determined by said area detection unit;

an arithmetic unit configured to calculate a main light emitting amount in the main light emission in accordance with a photometry value based on the pre light emission in the light control area of the captured image of the object; and

a control unit configured to control to photograph the object in the main light emission by controlling the light emitting unit on the basis of the main light emitting amount calculated by said arithmetic unit.

Sannoh describes a camera that detects a human face in a photometric area and performs optimum AF, AE and/or WB processing on an image of the human face. Upon photographing the human face, an exposure control is performed. However, the Office Action

conceded that Sannoh “fails to specifically state that the auto-exposure and face detection processing includes a pre-light emission operation and that a main light emitting amount is calculated in accordance with a photometry value based on a pre-light emission.” [10/9/08 Office Action at p.7]. Accordingly, the Office Action cited Nozaki.

Nozaki describes a digital camera that extracts a characteristic portion and position information in an object to be photographed, using a face recognition algorithm. It is respectfully asserted that in fact, Nozaki detects and determines an area of a face before the pre-light emission.

An image capturing device of Nozaki detects an edge of an object and determines an area of a predetermined shape in step S105 of Fig. 2 and then the flow proceeds to step S112. Fig. 9 shows the detailed sub-processes of step S112. In Fig. 9, if it is determined in step S251 that the luminance of an object is not less than the given value (ie. not too dark), the process advances to step S252 to determine whether or not a face is detected. If it is determined in step S252 that the face is detected, then the process proceeds to step S255 to determine whether or not the luminance of the face is less than a given value. If it is determined in step S255 that the luminance of the face is less than a given value, then the process advances to step S258 to emit light in a pre-light emission and then in step S259, a main light emitting amount is calculated in accordance with a photometry value of the face based on the pre light emission.

On the other hand, if it is determined in step S251 that the luminance of an object is less than the given value (ie. too dark), the process advances to step S261 to determine whether or not a face is detected. If the face is detected in step S251, then in step S264, the pre-light emission is performed in step S 264 and then in step S265, a main light emitting amount is calculated in accordance with a photometry value of the face based on the pre light emission.

As describe above, Nozaki detects and determines an area of a face before the pre-light emission. In other words, Nozaki detects and determines an edge of a face without a light emission of a flash unit, but does not detect, on the basis of a captured image of an object to be photographed based on pre light emission, an edge in the captured image of the object to determine an area.

Accordingly, as Applicant cannot find a unit configured to “detect, on the basis of a captured image of an object photographed based on pre light emission prior to a main light emission, an edge in the captured image of the object” of claim 3 in Nozaki or Sannoh, at least independent claim 3 is asserted to be in condition for allowance. For at least similar reasons, similarly amended independent claim 15 and dependent claims 3-10, 16-22 and 24 are believed to be in condition for allowance as well.

CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1232-5691.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: December 1, 2008

By:



Allen Chein
Registration No. 57,451

Correspondence Address:
MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile